

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference W 3932-005 SP	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE 2003/001315	International filing date (day/month/year) 26.08.2003	Priority date (day/month/year) 09.09.2002
International Patent Classification (IPC) or national classification and IPC B61D 3/04, B61D 3/18		
Applicant Novatrain AB et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 3 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ (sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 06.04.2004	Date of completion of this report 14.12.2004
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Christer Jönsson/EK Telephone No. +46 8 782 25 00

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE 2003/001315

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1 - 7 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* 1 - 3 \_\_\_\_\_ received by this Authority on 17.09.2004
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages 3 - 4 \_\_\_\_\_ as originally filed/furnished
- pages\* 1 - 2 \_\_\_\_\_ received by this Authority on 17.09.2004
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE 2003/001315

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-14</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-14</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-14</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The closest prior art cited in the International Search Report:

D1: US 4948310 A (ORD)

The cited document represents the general state of the art. The invention defined in claims 1-14 is not disclosed by this document.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed device and method for loading/unloading of goods from a goods wagon comprising a load carrying unit and two end wagon portions, locked together by locking means which are inactivated by means of means for raising the load carrying unit in a way as stated in the claims. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-14 is novel and is considered to involve an inventive step. The invention is industrially applicable.

CLAIMS

1. Device for facilitating loading/unloading of goods from a goods wagon (1) comprising at least one load-carrying unit (5), two wagon portions (10) and means for locking together the load-carrying unit (5) and the wagon portions (10), which wagon portions are provided with means for transport on rail, said load-carrying unit (5) being separable from the wagon portions (10) in at least one end, and is movable to facilitate loading/unloading of the load-carrying unit (5), **characterized** in that the load-carrying unit (5) is provided with at least one slide foot that slides over a slide belt during lateral displacement of at least one end of the load-carrying unit, where the means for raising the load-carrying unit (5) are provided for inactivating the locking means.

2. Device according to claim 1, **characterized** in that the slide foot (40) is provided with upwardly bent ends.

3. Device according to any of the preceding claims, **characterized** in that the slide belt (35) is housed in compartments (37) in side walls of the load-carrying unit (5).

4. Device according to any of the preceding claims, **characterized** in that the slide belt (35) is covered with, or manufactured from, low friction material.

5. Device according to any of the preceding claims, **characterized** in that the slide belt is covered with low friction plastic.

6. Device according to claim 5, **characterized** in that the low friction plastic covering the drive belt is of PTFE type (e.g. Teflòn®).

AMENDED SHEET

7. Device according to any of the preceding claims,  
**characterized** in that the load-carrying unit (5) is  
manufactured from composite plastics.

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8. Device according to any of the preceding claims,  
**characterized** in that the load-carrying unit (5) is  
provided with ramps (20) that facilitate loading/ unloading  
of goods.

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9. Device according to any of the proceeding claims,  
**characterized** in that the load-carrying unit (5) is  
raised and lowered by means (25) connecting the load-  
carrying unit (5) with the slide foot (40).

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10. Device according to any of the preceding claims,  
**characterized** in that one slide foot (40) with  
corresponding slide belt (35) is provided at each end of  
the load carrying unit (5).

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11. Device according to any of the preceding claims  
**characterized** in that ramp(s) are hingedly received  
in at least one end of the load-carrying unit (5).

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12. Method for facilitating loading/unloading of  
goods from a goods wagon (1) comprising at least one load-  
carrying unit (5), two wagon portions (10) and means for  
locking said load-carrying unit (5) and said wagon portions  
(10), which wagon portions are provided with means for  
transport on rail, said load-carrying unit (5) being  
separable from the wagon portions (10) on at least one end,  
and is movable to facilitate loading/unloading of the load-  
carrying unit (5), **characterized** in that the ends of  
the load-carrying unit (5) are moved laterally, thereby  
inactivating the locking means, by means of at least one

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slide foot that slides over an corresponding slide belt during lateral displacement of at least one end of the load-carrying unit.

5           13. Method according to claim 12, **characterized**  
in that the ends of the load-carrying unit (5) are slid to  
) impose a pivoting motion of the load-carrying unit (5)  
around a central, virtual pivot axis situated between the  
wagon portions (10).

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)           14. Method according to claim 12, **characterized**  
in that the ends of the load-carrying unit (5) are moved  
laterally from the wagon portions (10), imposing a lateral  
movement of the load unit with respect to a virtual line  
15 connecting the wagon portions (10)

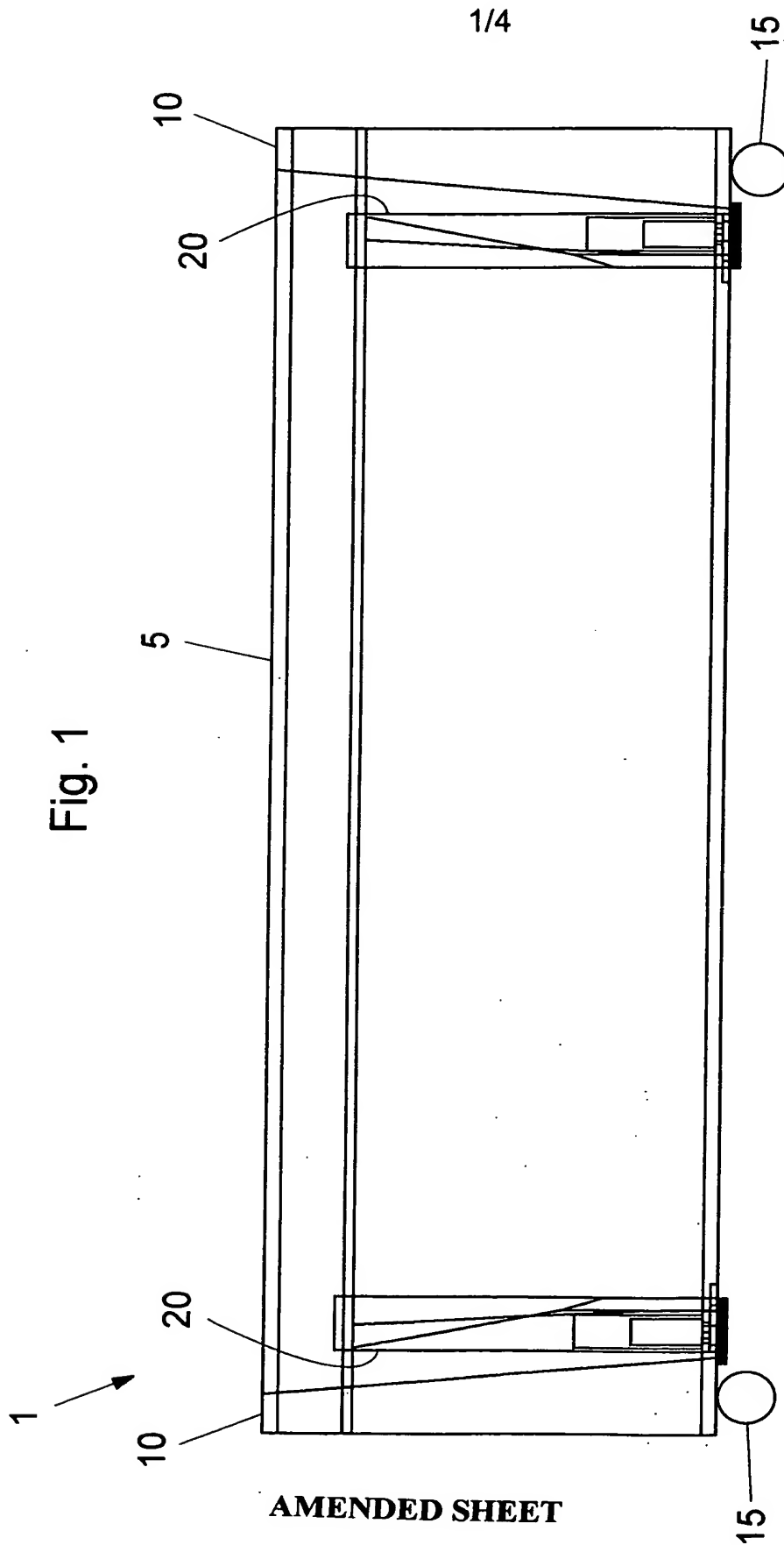


Fig. 2

